

Cuvier and Valenciennes; but as the notice of it in the "Histoire des Poissons" is extremely brief, I have deemed it advisable to annex a detailed description. Both Mr. Darwin's specimens are from King George's Sound, where the species was first discovered by MM. Quoy and Gaimard.

SERIOLA BIPINNULATA. Quoy et Gaim.

Seriola bipinnulata, Quoy et Gaim. Voyage de l'Uranie (Zool.) p. 363, pl. 61. f. 3.
Cuv. Regne An. (2d Edit.) tom. ii. p. 206.

FORM.—Elongated, and fusiform. Greatest depth contained four times and a half in the length, measuring this last to the base of the caudal fork. Head four times and a quarter in the same: depth of the head not quite once and three-quarters in its own length; the cheeks nearly vertical. Snout pointed: profile straight, and but slightly falling. Lower jaw a little longer than the upper, the commissure reaching to beneath the orifices of the nostrils: maxillary very conspicuous, and greatly dilated at its posterior extremity. A band of minute velutine teeth in each jaw, broadest in front; a disk of similar teeth on the vomer, and a band on each palatine. Eyes large; their diameter one-fifth the length of the head; situated a little above the middle of the cheek, and a little nearer the end of the snout than the posterior margin of the opercle; exactly two diameters between the eye and the end of the lower jaw. The nostrils consist of two small, round, closely approximating orifices, the anterior one partially covered by a membrane; situated rather nearer the eye than the extremity of the snout. Preopercle with the ascending margin vertical, and the angle at bottom rounded; the limb very broad, and marked with veins, and between the veins, along the basal margin, with fine striæ. The rest of the pieces of the gill-cover, taken together, present a rounded and regularly curved outline posteriorly; the line of separation between the opercle and subopercle ascends obliquely backwards from a point about two-thirds down the posterior margin of the preopercle; that between the subopercle and the interopercle (which last is well developed) passes downwards and backwards, forming an angle of about 45° with the axis of the body. Branchial aperture large; the membrane deeply cleft. Snout, jaws, and pieces of the opercle, smooth and naked; cheeks scaly, the scales on the upper part of the cheek, between the eye and the upper angle of the preopercle, being of a narrow pointed form. The scales on the body are of a moderate size, oval, marked with fine concentric circular striæ, with a fan of coarser diverging striæ on their concealed portion. The lateral line is smooth throughout its length, and runs nearly straight from the upper angle of the opercle to the caudal, its course being a little above the middle.

The first dorsal commences at about one-third of the entire length, measuring this last as before: it is low and inconspicuous, consisting of only six weak spines, of which the third and fourth are somewhat the longest, but whose length is less than one-fifth of the depth of the body. The length of the fin itself is rather less than half the depth. Second dorsal closely following, and much longer; of the form usual in this family, with the anterior portion elevated and somewhat triangular, but beyond the ninth ray low and even: its spine half the length of the first soft ray: its greatest elevation contained about two and a-half times in the depth. The last two rays of this fin are broke away from the rest, with an intervening space, to form a spurious finlet, and are rather longer, the last especially, than those which precede. The anal com-

mences opposite the fourteenth ray of the second dorsal, and is similar in form to that fin, but of course shorter, and also less elevated at its anterior extremity: finlet and the intervening space exactly corresponding. Caudal deeply forked; the lobes very long and pointed, each equalling nearly one-fourth of the entire length; the middle rays not one-fourth the length of the lateral ones. Pectorals attached a little below the middle; in length a little exceeding half that of the head. Ventrals about the same size as the pectorals, but attached a little further back. A slight elevation at the sides of the tail, but no distinct keel, properly so called.

D. 6—1/24—I; A. 1/16—I; C. 17, &c.; P. 20; V. 1/5.

Length 18 inc. 3 lines.

COLOUR.—"Band on the side azure blue; above a duller greenish blue; beneath two greenish metallic stripes: lower half of the body snow white."—D. No trace of the longitudinal stripes remains in the dried skin.

Habitat, Keeling Island, Indian Ocean.

A tolerably exact figure of this species occurs in the Zoological Atlas of Freycinet's Voyage, but I can find no notice of it in the "Histoire des Poissons" of Cuvier and Valenciennes. Although referred by Cuvier in his "Regne Animal" to *Seriola*, it rather departs from that genus in some of its characters. Independently of the spurious finlets in the dorsal and anal fins, which separate it from all the other species, I see no trace of any reclined spine before the first dorsal, nor of two free spines before the anal; in both which respects *Seriola* is said to resemble *Lichia*. Possibly, however, as Mr. Darwin's specimen is a dried skin, these characters may have been destroyed in the process of preparation. And to the same cause, perhaps, is to be attributed the circumstance of my not being able to observe more than one spine in the true anal, Quoy and Gaimard mentioning two. On the other hand, these naturalists appear to have overlooked the narrow pointed scales on the upper part of the cheeks, which are of a different character from the scales on the body.

Mr. Darwin's specimen of this species was obtained at the Keeling Islands. The one figured in Freycinet's Voyage was procured at Papua or New Guinea. It probably, therefore, has a considerable range over the Indian Ocean.

PSENES — ?

Psenes leucurus, Cuv. et Val. ? Hist. des Poiss. tom. ix. p. 197.

Mr. Darwin's collection contains two individuals of a species of *Psenes*, in reference to which his notes state that they were taken in Lat. 17° 12' S., Long. 36° 33' W., a hundred and twenty miles from the nearest land above water, though shoals were considerably nearer. They do not measure more than one inch eight lines in length; and from their small size, and their not being in a very

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